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Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554

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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

In the Matter of

Revision of the Commission's Rules  
To Ensure Compatibility with  
Enhanced 911 Emergency Calling  
Systems

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CC Docket No. 94-102  
RM-8143

**ERRATUM**

On August 9, 1999, the parties to the original Consensus Agreement<sup>1</sup> filed a report informing the FCC on the status of wireless E9-1-1 Phase I implementation.<sup>2</sup> After the report was filed with the Commission, CTIA noted an administrative error in the title of the report. Specifically, the title did not include the name of PCIA, which participated in the preparation of the report.

On behalf of the parties, CTIA has corrected this error and submits a copy of the report with the correct title to the aforementioned proceeding. The parties regret any inconvenience this administrative error may have caused the Commission.

<sup>1</sup> The parties to the Consensus Agreement were: Association of Public-Safety Communications Officials-International, Inc. (APCO); National Emergency Number Association (NENA); National Association of State Nine One One Administrators (NASNA); and the Cellular Telecommunications Industry Association (CTIA). Although the Personal Communications Industry Association (PCIA) was not a signatory to the Consensus Agreement, PCIA has participated in the preparation of the report.

<sup>2</sup> See In the Matter of Revision of the Commission's Rules To Ensure Compatibility with Enhanced 911 Emergency Calling Systems, Report of CTIA, APCO, NENA and NASNA, CC Docket No. 94-102, RM-8143 (filed Aug. 9, 1999).

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Respectfully submitted,

**CELLULAR TELECOMMUNICATIONS  
INDUSTRY ASSOCIATION**

A handwritten signature in cursive script, reading "Andrea D. Williams". The signature is written in dark ink and is positioned over a horizontal line.

Andrea D. Williams  
Assistant General Counsel

August 10, 1999

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

In the Matter of

Revision of the Commission's Rules	)	
To Ensure Compatibility with	)	CC Docket No. 94-102
Enhanced 911 Emergency Calling	)	RM-8143
Systems	)	

**REPORT OF CTIA, PCIA, APCO, NENA, and NASNA**

On June 9, 1999, the Federal Communications Commission ("FCC" or "Commission") issued a Public Notice<sup>1</sup> requesting that parties to the original Consensus Agreement<sup>2</sup> file a report on August 9, 1999, informing the FCC on the status of wireless E9-1-1 Phase I implementation. The Public Notice specifically references cost recovery and choice of Phase I transmission technologies as issues that may be causing delays in implementation of E9-1-1.

This report identifies the processes associated with implementing wireless E9-1-1 Phase I. The goals of this report are to identify problems associated with the deployment of Phase I and to provide solutions.

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<sup>1</sup> Public Notice, CC Docket No. 94-102, Commission Seeks to Facilitate Wireless E911 Implementation and Requests a Report, FCC 99-132 (rel.: June 9, 1999).

<sup>2</sup> The parties to the Consensus Agreement were: Association of Public-Safety Communications Officials-International, Inc. (APCO); National Emergency Number Association (NENA); National Association of State Nine One One Administrators (NASNA); and the Cellular Telecommunications Industry Association (CTIA). Although the Personal Communications Industry Association (PCIA) was not a signatory to the Consensus Agreement, PCIA has participated in the preparation of this report.

## Background

**The FCC's 1996 decision:** Key elements of the FCC's First Report and Order in Docket

No. 94-102 are as follows:

- Definition of Phase I – location is defined as cell site and call back capabilities. The compliance date for Phase I was April 1, 1998.<sup>3</sup>
- Definition of Phase II – Automatic location identification (ALI) must be provided along two dimensions (longitude and latitude) within a radius of 125 meters root mean square for about 67% of the calls. The compliance date for Phase II is October 1, 2001.
- Cost recovery mechanisms must be in place as a prerequisite to the imposition of E9-1-1 service requirements upon covered carriers. Public Safety Answering Points (PSAP) must be able to receive and use E9-1-1 data.

**Other FCC action:** Additional FCC decisions, or in some cases lack of decisions, that bear on this report include the following:

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<sup>3</sup> The Consensus Agreement originally proposed Phase I implementation within 12 months (according to the public safety signatories) or 18 months (according to CTIA) after the adoption of a Commission Order. In addition, wireless carriers have six months to respond to Phase I service requests submitted after November 1, 1998.

- The FCC has determined that non-subscribed wireless phones must be able to access emergency services.
- The FCC has denied wireless carriers the same liability protection enjoyed by wireline carriers. The FCC also has indicated that liability protection is not a precursor for a wireless carrier to provide E9-1-1 service. Many wireless carriers have been hesitant to assume the additional liability exposure inherent in E9-1-1 absent such liability protection and have sought liability protection through Federal and state legislation. The lack of liability protection for wireless carriers has been and may continue to be one of the impediments to implementing E9-1-1 Phase I services.
- The FCC has declined to address a number of pending issues surrounding technology choice and the definition of an adequate funding mechanism. The requests seeking clarification from the Commission on these matters reflected the desire of the parties to the Consensus Agreement to shorten the delays associated with implementing E9-1-1 Phase I. The absence of clarification by the Commission has been and may continue to be one of the impediments to implementing E9-1-1 services.

## **CURRENT STATE OF E9-1-1 DEPLOYMENT**

At the request of the parties to the Consensus Agreement, the FCC referred cost recovery issues to the states and local jurisdictions. Accordingly, carriers and public safety have worked with state legislatures to pass laws creating cost recovery legislation. By CTIA's count, as of June 30, 1999, twenty-seven states have enacted legislation to facilitate Phase I funding mechanisms in response to the FCC's 1996 First Report and Order on wireless E9-1-1. According to SCC, thirty-three states currently have wireless 911 surcharges. Prior to the FCC's decision, two states passed laws addressing wireless 911. Some states, like New Jersey, have been able to initiate E9-1-1 Phase I without new or additional state legislation. One state (IL) has legislation awaiting signature, and in at least two states (MA, OH), legislation has been introduced. Since 1996, four states (HI, KS, ID, MO) have rejected the opportunity to enact a funding mechanism. In short, there is no "one size fits all" cost recovery solution.

Often times, the pace of the legislative progress can be correlated to the level of differing interests of PSAPs and the wireless carrier community regarding funding legislation and mechanisms. In some cases, specific state legislation has been opposed at different times by interest groups, individual wireless carriers, and various governmental authorities, including one governor. Depending on the perspective taken, the administrative processes enacted in a few states (GA, IN, CO) also may be contributing to implementation delays. There may be instances, too, that some states with cost recovery legislation (CA, AZ) may find their funding to be inadequate for Phase I implementation.

Despite these delays, a number of states and jurisdictions have initiated E9-1-1 Phase I services. According to CTIA, there are 284 PSAPs in fifteen different states that have implemented E9-1-1 Phase I services. Despite the seeming delays, it is important to recognize the commitment of all parties to the Consensus Agreement to implement E9-1-1 Phase I.

Carriers and public safety representatives have worked closely with their vendors to identify the necessary technical standards to support E9-1-1 Phase I services and have ensured their development. This has required the commitment of considerable resources in the various standards setting bodies. Carrier involvement in the Wireless E9-1-1 Implementation Ad Hoc (WEIAD), the NENA Technical Development Conference, and similar bodies has been critical to the success of the standards development process. Wireless infrastructure suppliers have met the technical standards and requirements set out in the FCC's First Report and Order by ensuring that their switches and networks are capable of complying with the E9-1-1 Phase I technical requirements.

Numerous Task Forces and E9-1-1 Boards have been organized at both the local and state level to address local implementation of the FCC requirements. Wireless carriers and PSAPs alike have been active participants in these efforts, helping establish the set of common concerns and issues necessary for their success. By working through these issues and developing creative approaches to the various legislative, technical and operational hurdles encountered, these cooperative efforts have laid the groundwork for ubiquitous wireless E9-1-1 Phase I.

In some cases, partnerships between PSAPs and wireless carriers have helped assess activities that must precede wireless E9-1-1 Phase I deployment. Also, in some

cases wireless carriers took additional steps toward deployment by actively advocating legislation that included cost recovery mechanism for the PSAPs as well as themselves. This much-needed collaboration has yielded a better understanding of each participant's needs and concerns, as well as their responsibilities for providing wireless E9-1-1 Phase I service.

In support of the PSAP community, APCO has developed and disseminated materials regarding the PSAP requirements for implementing Phase I. NENA has developed similar materials, in addition to conducting numerous seminars and educational efforts. Additionally, NENA has endeavored to develop an action template for the public safety community that will explain the public safety community's requirements for implementing Phase I and Phase II, and further provide an "implementation template" to be used by PSAPs.

The growing number of states with E9-1-1 legislation and initial implementation of wireless E9-1-1 Phase I provide good models for deployment and will lead to more ubiquitous wireless E9-1-1 deployment nationwide. The parties submit that these efforts, viewed cumulatively, should provide for more momentum in the deployment of wireless E9-1-1 Phase I and Phase II services to the extent possible under current circumstances.

## **IMPLEMENTATION ISSUES**

The parties have observed several issues as presenting challenges for the deployment of E9-1-1 Phase I. Most of these issues can not be resolved by Commission



action, and are provided herein simply to illuminate the issues facing the wireless carriers in deploying E9-1-1 Phase I service. These informational issues include:

- Wireless service areas and number of PSAPs
- PSAP and Carrier Operational Impacts

Other issues, however, if properly remedied, could facilitate the rollout of E9-1-1 Phase I services through Commission intervention. These action issues include:

- Liability protection
- Antitrust protection
- PSAP Technical Capabilities / Local Exchange Carrier Relations
- Cost Recovery

## **INFORMATIONAL ISSUES:**

### **Wireless service areas and the number of PSAPs:**

**Issue:** There are potentially nine wireless service providers in each market, each with a unique service area (*i.e.*, various combinations of Major Trading Areas, Basic Trading Areas, Metropolitan Service Areas, Rural Service Areas, etc.). The wireless carrier can serve a single market, be a multi-market licensee, or a large regional or national operator. In any given wireless service area, there may be one or more PSAP operations which may or may not be served wholly by that wireless carrier.

PSAPs are organized in several different ways. Some PSAPs operate and can negotiate wireless service contracts on a stand-alone basis. Other PSAPs are part of

or expertise to become current on the latest developments and changes in the E9-1-1 field. This also has impeded the implementation of E9-1-1 Phase I service.

While there may have been an initial lag in the knowledge of these smaller entities regarding Phase I and Phase II, more and more smaller entities, PSAPs and wireless carriers alike, are now working on the implementation of E9-1-1 Phase I.

**Cost recovery:**

**Issue:** In some cases, the issue of cost recovery has been an impediment to the implementation of Phase I services. Whether state legislation is actually required before Phase I can be implemented is not clear. Clearly, some jurisdictions have requested and implemented Phase I without a separate funding law. However, there remain significant issues regarding Phase I funding.

Cost Recovery issues include:

- How much money is collected, and how the amount of money collected is calculated given the various financial needs;
- The collection methodologies, and cost recovery for others;
- How PSAPs and wireless carriers spend E9-1-1 funds; and

- What costs are eligible for reimbursement and how the funds will be disbursed to the "billing" entities

**Wireless Perspective:** Cost recovery for wireless providers should cover the costs incurred to provide the PSAP with wireless E9-1-1 services. From the wireless industry's perspective, PSAP cost recovery for processing wireless E9-1-1 calls should be for the incremental costs associated with processing such calls. Wireless carriers prefer an equal, uniform assessment and that the recovery of their respective costs (recognizing that each carrier's costs would vary from other carriers' costs) be paid from a common fund.

Minimizing their expenditures and operational costs, while providing the best E9-1-1 Phase I service is of primary concern to wireless carriers. Reconciling the carrier's choice of the best technical and operational solution -- when it is not consistent with the solution preferred by the PSAP -- is typically where the issues associated with technology choice become an issue for discussion.

**PSAP Perspective:** PSAPs generally desire to have E9-1-1 Phase I services as soon as possible. Further, PSAPs have different funding formulas and technical capabilities. Under the current interpretation of the rules, PSAPs prefer to address the wireless carrier's portion of cost recovery on the organizational level under which they are organized (*i.e.*, Singular PSAPs, Districts of PSAPs, or State coordinators as the case may be). The public safety community believes this is a reasonable and logical way to address the funding mechanism.

PSAPs often need money to prepare for wireless E9-1-1 Phase I implementation. Additional delay is encountered when cost recovery legislation must be enacted before the PSAP can start to upgrade. Inclusion of PSAP upgrade funding in the cost recovery legislation is the most common avenue for a PSAP to make the needed improvements. Lacking a revenue source to fund E9-1-1 to include service and a mechanism through which to disburse these funds, the PSAP must either use general funds to implement Phase I or simply wait to request this service.

Minimizing PSAP expenditures and operational costs, while providing the best Phase I services is also of primary concern to the PSAP manager. Reconciling the best technical and financial solution for the PSAP when it is not consistent with the approach that is operationally and financially the best one for the wireless carrier is typically where the issues associated with technology choices enter into discussion.

#### **Solutions:**

**Issue:** To implement Phase I, PSAPs must have the means (cost recovery) to pay for the service. The parties to the Consensus Agreement have different suggested solutions for cost recovery plans that will expedite the deployment of Phase I.

The APCO approach to cost recovery is attached as Addendum A. The NENA approach to cost recovery is attached as Addendum B. NASNA's statement concerning cost recovery is attached as Addendum C. CTIA's approach to cost recovery is attached as Addendum D.

In some cases, cost recovery for Phase I E9-1-1 requires funding legislation. In addition to the actual legislation, and in some instances, additional process mechanisms need to be in place for effective cost recovery.

## **ACTION ISSUES:**

### **Liability Protection:**

**Issue:** The wireless industry has asked the FCC on three occasions to grant liability protection comparable to the same provisions given wireline carriers. To date, the FCC has declined to provide liability protection to wireless carriers. In the absence of Federal liability protection, carriers have had to seek liability protection at the state level and in Congress. From the wireless industry perspective, any solution for improving the implementation of E9-1-1 Phase I must include liability protection.

As background, any communications dependent on radio frequency (RF) technology is subject to a variety of factors that may inhibit communications. These factors range from the inability to site antennae to RF interference. As a result, E9-1-1 call completion is subject to factors beyond wireless licensees' control. Additionally, the terms of a CMRS license do not require licensees to provide coverage throughout the licensee's service area. Accordingly, a carrier may be in full compliance with the FCC's license rules, but because of the laws of physics and its build-out schedule, not every wireless E9-1-1 call attempt may be processed.

Liability is a concern for both wireless carriers and PSAPs. State cost-recovery legislation has been complicated (and even killed) by the need to address limitations of liability along with cost recovery. The FCC's action that included non-subscribed phones within wireless carriers' (and PSAPs') 911 call processing requirements, coupled with the Commission's refusal to permit carriers to file informational E911 tariffs with the FCC, has made liability protection an issue that must be addressed at the state level and in Congress. Since wireless systems, and even individual cells, can serve more than one state, liability protection can remain as an implementation problem even in states that have provided liability protection if a neighboring state has not addressed the issue.

The FCC, at the Wireless Telecommunications Bureau level, has stated that liability protection is not a prerequisite for E9-1-1 Phase I implementation, and has left open the issue of how carriers could recover the costs associated with private liability protection. Carriers' cost of private liability insurance is significant, and must be recovered, either directly or indirectly, from customers, thereby significantly increasing the cost providing E9-1-1 service. Wireless carriers who must recover the cost of liability insurance are at a competitive disadvantage when competing with the local exchange carrier who is allowed liability protection under tariff. Wireless carriers' cost of liability insurance can be so significant that it overwhelms existing cost-recovery mechanisms. As a result, wireless carriers must go to each state for liability protection and press for Federal legislation granting liability protection.

Finally, the FCC's ruling to allow non-subscribed phones to access E9-1-1 services has underscored the need for liability protection. The FCC's non-subscribed phone decision has led wireless carriers to seek liability protection at the Federal, state

and local level. The efforts to obtain liability protection have slowed E9-1-1 implementation. Significantly, this disparity may also affect PSAPs' own liability risks in handling wireless calls. As a result, PSAPs have joined with wireless carriers in seeking liability protection on a state-by-state legislative basis and in Congress.

**Solution:** The absence of Federal liability protection has forced the wireless and public safety communities to continue their efforts with state legislatures and Congress, and will continue to slow the universal availability of E9-1-1. The parties are supporting Senate Bill 800, which addresses the issue of liability and perhaps eliminates the need for FCC action with respect to liability protection. Both the U.S. House of Representatives and the U.S. Senate now have passed bills that contain liability protection for wireless E9-1-1 calls.

#### **Antitrust protection:**

**Issue:** Wireless carriers seeking uniform implementation solutions, especially in markets where there are multiple PSAPs, are limited in their ability to discuss and decide on matters affecting E9-1-1 implementation due to antitrust concerns.

**Solution:** Depending on the level of cooperation needed to implement uniform solutions to providing wireless E9-1-1 service, antitrust concerns may be an impediment. To resolve this concern, the FCC would need to be involved sufficiently to provide antitrust

immunity by virtue of its exclusive jurisdiction over mobile service spectrum management to "promote the safety of life and property."

### **PSAP Capabilities / LEC Relationships**

**Issue:** While there has been substantial discussion surrounding the wireless carriers' role in providing E9-1-1 Phase I service to the public safety community, there are equally large issues facing the PSAP community before it is even able to "receive and use the data" made available from the wireless carriers. Like the wireless carriers, the areas fall into three categories: operational, technical, and financial.

Local Exchange Carriers own and operate (and usually lease-back through a service contract) most of the 9-1-1 access tandems (more appropriately referred to as a "selective router"), ALI databases, the trunks used to carry 9-1-1 calls and (sometimes) the CPE at the PSAP dispatch locations throughout the country. The price the PSAP pays for the LEC services are typically determined through a "special tariff" which is subject to review at the state level. The service(s) provided by the LEC to the PSAP are contractual in nature and are subject to the parameters outlined by the PSAP in its request for service, including technical, operating and financial parameters.

Given the highly localized nature of PSAP services, most 9-1-1 calls are directed through LEC end-offices, or tandem, to PSAPs operating within a single area code. Due to the limited geographic focus of most PSAPs, the PSAP equipment, trunking, routing infrastructure and ALI databases historically were designed as an intraLATA operation and performance was optimized for seven digit dialing patterns.



Today, it is estimated that a great majority, in some cases 85% or more, of the PSAP operations utilize CAMA ("Centralized Automatic Message Accounting") signaling between the 9-1-1 selective router and the PSAP location. The bulk of the selective routers, CPE equipment (the dispatch console equipment) and ALI databases used by these PSAPs are configured to support seven digit dialing patterns. Until upgrades are made to allow PSAPs the ability to process the additional digits needed to transmit wireless E9-1-1 Phase I data, the deployment of E9-1-1 Phase I likely will be hindered.

The selective routers in use today were, in particular, designed and installed to operate CAMA signaling, which supports a maximum of eight digits. These routers cannot be adapted to support the digital signaling (ISUP) used by many wireless switches in use today. Likewise, many of the routers cannot be modified (software) to support the twenty-digit capacity specified in NENA's *Tandem to PSAP Specification 03-002*. Additionally, there are other tandem switches that promise to be incompatible with the industry's proposed numbering scheme for routing digits and routing keys.<sup>4</sup>

**Technical Summary:** In many, if not most cases, upgrading the 9-1-1 infrastructure is an enormous undertaking. The engineering, development, and deployment efforts required to upgrade the infrastructure for wireless E9-1-1 Phase I service could take well over a year, even if the financial impacts were understood, and funding or cost recovery were not an issue.

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<sup>4</sup> These numbering proposals are pending before the Industry Numbering Committee (INC) as Issue 150.

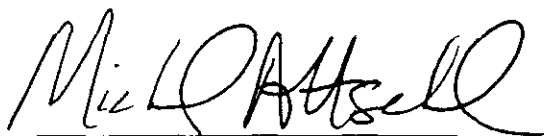
**Solution:** There are two basic wireless carrier/LEC/PSAP network architectures agreed to by NENA and the industry: Call Associated Signaling (CAS) and Non-Call Associated Signaling (NCAS), (hybrid variations are also being considered). A CAS solution allows all signaling to go through the 9-1-1-router tandem, whereby in the NCAS solution, most of the signaling bypasses the tandem. In many of the larger metropolitan areas, larger PSAPs have adopted more robust infrastructure, trunking and equipment capabilities, which allow the wireless 9-1-1 information to be provided directly through a CAS environment. Since most PSAPs are still operating in a CAMA environment, the wireless industry and representatives of the PSAP community have undertaken significant efforts to find a means to reduce the level of trunking replacement that might be required by the PSAP in order to accommodate 10-20 digit informational streams from the wireless carrier.

While the CAS and NCAS standards initiatives were a substantive step toward the development of standard interfaces for the delivery of ten digit plus information (which will be of immense service to the PSAP community in the advent of LNP dialing mandates), it does not mitigate or reduce the need to assess the operational readiness or compatibility of the router, ALI database and PSAP CPE to receive ten digit data information streams. The data structure issues, as well as the financial and timing impact associated with the fundamental changes to the underlying operating premise of the typical PSAP operation cannot be overstated.

**COMMISSION ROLE:** The role of LECs in the E9-1-1 Phase I process has been identified by parties of the Consensus Agreement as important. However, LEC

representatives were not part of the Consensus Agreement. To the extent PSAPs require that wireless E9-1-1 Phase I information to be delivered to the PSAP through the LEC network and to the extent the LEC network cannot transport wireless E9-1-1 data, delays in implementing E9-1-1 Phase I will occur. Federal and state regulatory authorities need to address issues associated with the role the LECs play in the E9-1-1 Phase I implementation.

Respectfully submitted.



Michael Altschul  
Cellular Telecommunications  
Industry Association



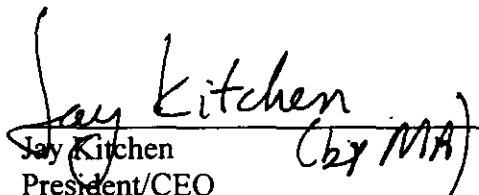
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August 9, 1999

**ASSOCIATION OF PUBLIC-SAFETY COMMUNICATIONS OFFICIALS-  
INTERNATIONAL, INC. (APCO) ADDENDUM REGARDING COST  
RECOVERY**

CC Docket 94-102  
August 9, 1999

On June 9, 1999, the Federal Communications Commission issued a *Public Notice*, FCC 99-132, requesting that the parties to the original Consensus Agreement in this proceeding submit a report regarding E9-1-1 implementation. The parties met in person and by conference call on several occasions during the last 60 days, and reached consensus on the attached report, which addresses many of the issues raised in the *Public Notice*. However, on the critical issue of cost-recovery, there are substantial differences between some of the parties as to what action, if any, the Commission should take to modify or clarify its rules. In particular, there was disagreement as to the appropriate response to the Commission's inquiry in the *Public Notice* regarding the "bill and keep" option for recovery of carriers' costs. APCO's views on this important matter are set forth below.

The prevailing interpretation of the FCC's wireless E9-1-1 rules is that wireless carriers' obligations under both Phase I and Phase II are contingent upon there being a mechanism in place to recover their cost of complying with the rules. Satisfying that cost-recovery requirement has been one of the most significant impediments to Phase I, and it threatens to pose even greater roadblocks for Phase II. Large portions of the nation's population are in states that still do not have even the most basic Phase I cost-recovery mechanisms in place, and hardly any governmental authorities have made

serious efforts to identify funding or procedures for Phase II (which, by most accounts, will impose substantially higher costs than Phase I).

Therefore, APCO urges that the Commission re-examine the cost-recovery rules now and quickly adopt appropriate clarifications or modifications. In particular, APCO believes that a more rational and expeditious approach to cost-recovery, at least for Phase II, would be for carriers to recover their own costs from their own subscribers, unless the relevant state and/or appropriate 9-1-1 authority chooses to adopt an alternative cost-recovery mechanism. Such a change would also be consistent with the normal regulatory practice, which rarely if ever conditions rule compliance on there being a government-sponsored process for impacted industries to recover the cost of such compliance.

The most common wireless 9-1-1 cost-recovery methodology has been a government-approved fee added to wireless subscribers' bills, with the moneys collected going to a government-administered fund that can then be used to reimburse carriers' for their E9-1-1 costs. However, in some states, legislators and governors have been loathe to adopt such mechanisms, fearful of being seen as imposing a fee that some view as a tax. There have also been concerns raised that the wireless E9-1-1 location infrastructure paid for by such government-sanctioned fees will be used by carriers to develop ancillary non-emergency location services, and/or that it will be used as a marketing tool. At the same time, some carriers have opposed cost-recovery legislation due to concerns over adding yet another fee to their customers' bills, and/or have objected to legislation unless it also includes liability protection.

Once approved, a "cost-recovery" mechanism must be administered by the government-authority, which must first undertake the difficult and time-consuming

process of establishing procedures for collecting fees and distributing proceeds. The absence of federal guidelines regarding the scope of recoverable costs makes this task even more difficult. The process is also complicated by the fact that the actual costs to be incurred by carriers are unknown at the time that the cost-recovery mechanism and fee levels are established. Thus, there is no way to know in advance whether the fees will be adequate to cover carriers' costs.

A related problem is the fact that carriers have complete control over the selection of technology and vendors, and have little or no incentive to select the most cost-effective approach. Indeed, carriers may actually have an incentive to do the opposite under the current rules. For example, a carrier that wants to avoid or delay compliance need only propose a location technology with projected costs that far exceed the available cost-recovery funds. When the government authority refuses to raise the funding level, the carrier can then argue that there is no effective cost-recovery mechanism in place, relieving it of any E9-1-1 obligations. An additional incentive to "gold-plate" carriers' E9-1-1 costs may also occur if the cost-recovery mechanism involves the creation of a common pool from which all carriers draw their expenses. In that case, some carriers may attempt to maximize their costs (and thus their draw from the pool), if only to deny any advantage to their competitors.

While these problems may not arise in every instance, the current interpretation of the cost-recovery requirement opens the door for such abuses which threaten to undermine the wireless E9-1-1 rules. Unquestionably, the requirement that there be a cost-recovery mechanism for carriers' costs has added substantial delay to wireless

E9-1-1 deployment. Thus, while some states may be able to act expeditiously and adopt reasonable and workable cost-recovery procedures, that should not be a condition precedent for wireless carrier provision of E9-1-1 capability.

APCO believes that carriers should be required to comply with the E9-1-1 rules whether or not a mechanism is established to recover their costs. In the absence of a such a mechanism, carriers could recover their own costs either through a line-item on their bills (“bill and keep”), or simply as a “cost-of-doing-business” reflected in their overall pricing structure in the competitive marketplace. That would eliminate the need for government authorities to stand between carriers and subscribers for the sole purpose of raising funds to pay the carrier’s own costs. It would also create incentives for carriers to be more, not less, cost-effective in implementing the wireless E9-1-1 rules.

APCO discussed these proposed changes in its joint meetings with representatives of the wireless industry, who raised the following objections. First, they argued that states need to establish cost-recovery “pools” to address the concerns of rural carriers faced with relatively high per-subscriber costs of compliance (due to the large number of sites relative to the number of subscribers). The “pooling” approach adopted by some states allows for the total funds collected from all carriers across a state to be combined and then reapportioned among urban and rural wireless carriers in a more “equitable” manner. However, only some of the cost-recovery mechanisms adopted to date include such pools (which the FCC does not require), and efforts to include cost-recovery pools have been controversial in some instances because of disputes between rural and urban interests. In any event, APCO is not suggesting that states be prohibited from establishing cost-recovery pools. Rather, if a state deems it necessary (*e.g.*, because of a

substantial disparity between urban and rural carriers operating within its boundaries). it is free to adopt a cost-recovery mechanism that addresses those special requirements.<sup>1</sup> However, states should not be required to adopt pooling, or carrier cost recovery in general, as a necessary condition for carriers to implement wireless E9-1-1.

A second objection to APCO's proposal was that mere Commission consideration of a change in the cost-recovery rules could stall progress towards Phase I implementation. APCO is certainly opposed to any unnecessary delays in the process. However, fear of delay is not a reason for the Commission to do nothing. Rather, it is a reason for the Commission to act quickly and decisively. Another option that the Commission may want to consider is to limit any changes in the cost-recovery requirement to Phase II, which would avoid disruption to the ongoing process of implementing Phase I.

APCO urges the Commission to give careful, but expeditious consideration to this matter.

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<sup>1</sup> APCO also notes that rural carriers have been among the strongest advocates of waivers to permit implementation of handset solutions for Phase II. Such handset solutions have substantially lower fixed infrastructure costs, thus mitigating the disparity between Phase II implementation costs for urban and rural carriers.



**NATIONAL EMERGENCY NUMBER ASSOCIATION  
(NENA) ADDENDUM REGARDING COST RECOVERY**

**CC Docket No. 94-102  
August 9, 1999**

The parties to the consensus agreement, pursuant to the Commission's request have convened numerous times over the past three months and discussed the various impediments to Phase I deployment. This report is the negotiated consensus report that reflects the agreed report of the parties. Regarding cost recovery, the parties herein agreed to submit separate recommendations regarding the suggested "mechanism for recovering the cost of the service," as proscribed by the Commission at, 47 CFR 20.18(f). This report by NENA reflects the role of the cost recovery as a factor in the foregoing analysis of impediments of Phase I services.

In response to the first Consensus Agreement, the FCC prudently left the matter of cost recovery to state and local authorities. As of today, due largely to the First Report and Order, approximately 33 states have put a funding mechanism (a wireless surcharge for E9-1-1) into place. Additionally, since the First Report and Order, 24 states have passed specific funding legislation to provide wireless E9-1-1 services. NENA believes cost recovery is primarily a state and/or local issue.

Further, as stated in the body of this report, the deployment of Phase I does not explicitly require cost recovery legislation before Phase I can be deployed. In the Rule's bare language, all that is currently required is 1) an ability to pay for the service by the PSAP, 2) a valid request by the PSAP to purchase the service from the wireless carrier providing wireless service in the jurisdiction. In some states (New Jersey for example)

Phase I services were purchased from the general fund. Additionally, some local jurisdictions (the city of Chicago for example) have deployed Phase I services wholly without cost recovery legislation.

One party of the consensus agreement favors a “bill and keep” approach to cost recovery. NENA opposes this approach on two substantive reasons. Foremost, the introduction of this new approach will seriously jeopardize the successful arrangements that are currently in place to provide cost recovery (33 states have some surcharge available for Phase I services, Illinois has a bill for signature). Introducing a bill and keep scheme retroactively to these jurisdictions will likely create disputes regarding funds already collected, and place the wireless carrier and PSAPs in the position of reworking difficult agreements that are already in place.

A second detriment for a “bill and keep” scheme is that such arrangement will place the PSAP alone in seeking funding legislation for Phase I and Phase II funds. The environment of a PSAP seeking legislation passage, while an unregulated wireless carrier may easily raise rates for the same service is not a ready solution for spurring Phase I services. As stated in the body of this report, the situations that have enjoyed the most success are those situations where the wireless carriers and PSAPs have worked together on funding legislation and other solutions. A bill and keep scheme eliminates this collaboration, and ignores the reality that each locality and arrangement is unique, and requires its own combination of funding and technology applications.

With these realities in place, NENA believes that cost recovery is not the primary impediment to the deployment of Phase I services. The primary impediment is the uncertainty surround the entire PSAP-wireless carrier relationship. NENA believes the

anti-trust protection requested in this document will allow parties across the nation explore cost-efficient arrangements for Phase I services. NENA believes that exploring the true costs of providing Phase I services is the key to passing legislation and to implementing workable arrangements for Phase I services.

In addition to this protection, NENA requests some clarification of remedies available to PSAPs who are unable to obtain Phase I services when the two requirements for Phase I services are met. Specifically, there are many jurisdictions with cost recovery legislation, and valid requests for services without Phase I services. In these cases, the PSAP is often left with no clear remedy for situations that include a lack of responsiveness by wireless carriers.

NENA urges the Commission to provide for the clarifications and antitrust protection requested herein.

**NATIONAL ASSOCIATION OF STATE NINE-ONE-ADMINISTRATORS  
(NASNA) ADDENDUM REGARDING COST RECOVERY**

**CC Docket No. 94-102**

**August 9, 1999**

NASNA supports the general position taken by NENA that cost recovery for wireless E9-1-1 Phase I service should remain primarily a state and/or local issue. NASNA believes that 9-1-1 Agencies need to continue working with wireless carriers, third party vendors, and Incumbent Local Exchange Companies on cost recovery and technical issues associated with implementing Phase I service. This will ensure the best provision of wireless E9-1-1 service in an effective and efficient manner, and will ensure that public funds are expended responsibly. NASNA believes that the current FCC Rules on the cost recovery and technical issues associated with implementing wireless E9-1-1 service permit the parties and the process to work appropriately and that the current FCC Rules on these issues should not be modified at this time.

**CELLULAR TELECOMMUNICATIONS INDUSTRY ASSOCIATION  
(CTIA) ADDENDUM ADDRESSING COST RECOVERY**

CC Docket No. 94-102  
August 9, 1999

As noted in the Cost Recovery section of this Report, the requirement that there be a "mechanism for recovering the cost of the service," is an important condition of the Commission's wireless E9-1-1 rules, 47 CFR 20.18(f). When the original Consensus Agreement was first presented to the Commission, the parties to the Consensus Agreement asked that the cost recovery mechanism not be defined at the federal level. In response, the FCC declined to adopt a particular approach to cost recovery, preferring instead to leave the matter to state and local resolution.<sup>1</sup>

The flexibility afforded by the Commission's rule has created a fair amount of uncertainty within the public safety and wireless communities. At least one of the parties to the original Consensus Agreement would like to interpret the Commission's cost recovery rules as being satisfied if carriers are permitted to recover their wireless E9-1-1 compliance costs on a "bill and keep" basis. In CTIA's view, this represents a fundamental restructuring of the original understanding that does not fall within the scope of the existing rules.<sup>2</sup> Moreover, Commission inquiry into such a key element of the

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<sup>1</sup> Revision of the Commission's Rules To Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, *Report and Order and Further Notice of Proposed Rulemaking*, 11 FCC Rcd 18676, 18722 (1996), Recon., 12 FCC Rcd 22665, 22734-5 (1997).

<sup>2</sup> The condition that "a mechanism for recovering the costs of the [enhanced 9-1-1] service is in place" would be meaningless if the Commission's rules contemplated carrier

wireless E9-1-1 rules risks freezing the ongoing efforts throughout the Nation which are focused on delivering Phase I capabilities to the public, and even risks undoing funding agreements that already have been successfully negotiated. As a result, the parties have been unable to reach an understanding on the cost recovery mechanisms which must be in place as a condition for providing wireless E9-1-1 service under the Commission's rules.

CTIA continues to believe that cost recovery issues must be resolved at the state and local level. Moreover, while not a prerequisite to a satisfying the rule, in many instances, a uniform E9-1-1 fee imposed equally on all carriers to fund location technology will be the most effective way to satisfy the Commission's requirements.

With limited exceptions, the costs for wireless E9-1-1 -- both those incurred by the PSAPs for their upgrades and by carriers deploying E9-1-1 technology -- are being funded by fees from wireless subscribers -- not general appropriations or other revenue sources. Therefore, the relevant question is not who will pay, but rather how will payment occur, and how much will it be.

To support keeping costs at a minimum, and recognizing that the vast majority of PSAP operations throughout the country were not capable of receiving or utilizing the data elements associated with wireless E9-1-1 service, the wireless industry adopted technical standards that would minimize the impact to the existing PSAP network and could deliver the pertinent wireless data elements transparently to the PSAP, even if the

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self-recovery (*i.e.*, "bill and keep") as satisfying the conditions set forth in Section 20.19(f) of the Commission's rules. 47 C.F.R. § 20.19(f). Moreover, since the FCC's rules require CMRS carriers to transmit "all wireless 911 calls without respect to their call validation process," the FCC's rules contemplate that there will be a category of calls that will be impossible to bill to the calling party. *See* 47 C.F.R. § 20.19(b). The FCC has just expanded this category of unbillable calls. *See Second Report and Order*, CC Docket No. 94-102 (adopted: May 13, 1999; released: June 9, 1999).

wireless providers were using disparate solutions. Cost recovery issues associated with the differences in technology choices, the carrier's inability to recover costs associated with providing E9-1-1 services to the local PSAP due to differences in network design, topologies, and operational capabilities from other local carriers, or funding mechanisms that do not effectively compensate the carrier for providing wireless E9-1-1 services in their specific geographic areas have been contributing factors to any delays that may have occurred.

The Commission has a duty to ensure that the cost recovery mechanisms are competitively neutral. Different CMRS systems will confront different compliance costs based, among other things, on their different service areas, their different air interfaces and network infrastructure vendors, upon the location technology chosen, and the number of emergency callers who are non-subscribers on their network. In order to preserve competitive neutrality, cost recovery mechanisms should avoid favoring one carrier's E9-1-1 compliance cost structure over another carrier's cost structure.

Relying on state and local mechanisms is not without difficulty. For example, some states have imposed a wireless 9-1-1 fee, without allocating a portion of the funds to wireless service providers to offset their E9-1-1 upgrade expenses. In these cases, funds are being collected from wireless subscribers, but the money collected is not being directed to benefit wireless customers. Not only is this a "truth-in-billing" issue, it does not advance the availability of wireless E9-1-1. Even with these difficulties, CTIA continues to believe that these are issues that are best resolved at the state and local level and the wireless industry remains committed to providing Phase I E9-1-1 service throughout the country.